

Remarks

The Applicants have amended the Specification to place it into final condition for allowance. Entry into the official file is respectfully requested.

The originally filed Abstract contained "legal" language and has accordingly been amended. An Abstract on a separate sheet is enclosed for the Examiner's convenience.

Claim 1 has been amended to include the subject matter of Claims 10, 11 and 13. Those claims have accordingly been cancelled. Also, Claims 12 and 14 have been amended to account for the cancellation of Claims 11 and 10, respectively. Both of Claims 12 and 14 now depend from Claim 1. Entry of those changes into the official file is respectfully requested.

Claims 1, 2, 5-11 and 14-16 stand rejected under 35 U.S.C. §102 as being anticipated by Savitski. The Applicants respectfully submit that the rejection is now moot in view of the incorporation of the subject matter of Claim 13 into Claim 1. Withdrawal of the rejection is respectfully requested.

Claim 3 stands rejected under 35 U.S.C. §103 over the hypothetical combination of Sixsmith with Savitski. The Applicants respectfully submit that this rejection is also moot for the reasons set forth above.

Claim 4 stands rejected under 35 U.S.C. §103 over the hypothetical combination of Kistenich with Savitski. The Applicants respectfully submit that this rejection is moot for the reasons set forth above.

Claims 2 and 10-13 stand rejected under 35 U.S.C. §103 over the hypothetical combination of Savitski with Beal. The Applicants note with appreciation the Examiner's detailed comments hypothetically applying that combination against those claims. The Applicants respectfully submit that the rejection is now moot with respect to Claims 10, 11 and 13 in view of their cancellation.

The Applicants nonetheless respectfully submit that the rejection is inapplicable to Claims 2 and 12 for the reasons set forth below.

Beal discloses butt fusion of the two pipe-shaped articles through a conduit (fitting). The conduit is made of a laminate comprising a polyolefin inner layer adhered to a polyamide outer layer, wherein the polyamide layer contains a substance promoting adhesion of the layers which may be polyethylene. However, Beal discloses butt fusion, not laser welding.

The addition of polyethylene in Beal is to improve adhesion of the polyamide outer layer with the polyolefin inner layer by including polyolefin in the polyamide layer. Such motivation is not present, however, in the rejected claims, since the pipe-shaped article need not be a laminate-type article.

More importantly, Beal does not suggest use of polyethylene as an additive for weak laser absorbency. This is important because the Applicants affirmatively claim that the additive has weak absorbency for laser light. This naturally follows because Beal not only does not disclose laser welding, but has no interest in laser welding. Instead, as discussed in the upper half of Col. 6 of Beal, Beal discusses the disadvantages of butt fusion relative to the use of electrofusion weldable sleeves to adhesively bond the sleeves. The issues that arise from butt fusion and electrofusion weldable sleeves is the cause for the innovation in Beal with respect to the laminate structure. Thus, one skilled in the art would have no incentive or motivation to look to Savitski and the laser welding disclosed therein.

Savitski discloses laser welding of two pipe ends, one of which is a radiation transmitting material 42 and the other one of which is a radiation absorbing material 44 (Fig. 1). The radiation transmitting material 42 includes acrylic, ultraviolet grade acrylics, polystyrenes, polycarbonates, methylmethacrylates, fluoropolymers, methylpentenes, epoxides, silicones and trethanes as shown in

Col. 7 at Lines 42-50, but must not absorb appreciable quantities of the radiation as shown in Col. 7 at Lines 53-54.

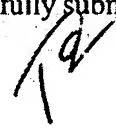
In sharp contrast, the Applicants' claimed first resin member has weak absorbency for laser light and comprises a resin and an additive having weak absorbency for laser light, wherein the additive is at least one member selected from ethylene and/or propylene-based copolymers, styrene-based copolymers, modified ethylene and/or propylene-based copolymers and modified styrene-based copolymers. Savitski does not disclose or teach this claimed feature, namely the use of a resin member having weak absorbency for laser light.

Thus, neither Beal nor Savitski disclose or teach use of a resin member having weak absorbency for laser light and comprising a resin and an additive having weak absorbency for laser light, when the additive is at least one member selected from ethylene and/or propylene-based copolymers, styrene-based copolymers, in laser welding to improve the strength of laser welding.

Inasmuch as the inventive solutions of Beal are directed to solving issues associated with butt fusion and electrofusion weldable sleeves, one skilled in the art would have no incentive to look to the laser welding disclosed by Savitski. Moreover, the Applicants respectfully submit that one skilled in the art would have no reasonable expectation of success that laser welding as disclosed by Savitski would work on the laminate structures of Beal. Those multiple configurations introduce variables into the laser welding process not contemplated by Savitski such as the inner face between the multiple layers and how this would interact with the laser radiation. As such, the Applicants respectfully submit that one skilled in the art would not make the hypothetical combination as set forth in the rejection. Withdrawal of the rejection is respectfully requested.

In light of the foregoing, the Applicants respectfully submit that the entire application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,


T. Daniel Christenbury
Reg. No. 31,750
Attorney for Applicants

TDC/as
(215) 656-3381